

REMARKS

Claims 1 – 32 have been examined. Claims 1 – 5, 7 – 18, 21 – 26, and 28 – 32 stand rejected under 35 U.S.C. §102(a) and §102(e) as anticipated by U.S. Pat. Appl. Publ. No. 2003/0128917 (“Tarpin”); and Claims 6, 19, 20, and 27 have been identified as allowable except for their dependence from a rejected base claim. The claim rejections are respectfully traversed.

While the Office Action cites all figures in Tarpin, the example provided appears to focus on Fig. 38, which is an embodiment of Tarpin configured as an add-drop multiplexer (Tarpin, ¶351). This embodiment makes use of the optical tapped delay line (“OTDL”) device that is described more fully in Tarpin in connection with Fig. 12. The OTDL has a fully reflective surface (232 in Fig. 12; not labeled in Fig. 38) and a partially reflective surface (236 in Fig. 12; not labeled in Fig. 38) (*id.*, ¶183). An incoming collimated beam (230f in Fig. 12; 610 in Fig. 38) is reflected successively by these surfaces so that a plurality of output beams emanate from taps (240 in Fig. 12; 622 in Fig. 38) on each encounter with the partially reflective surface (*id.*, ¶187). By inclining the fully and partially reflective surfaces relative to an incident beam (230f in Fig. 12, 610 in Fig. 38), the OTDL acts to provide a spatial separation between the output beams (in a direction up the page); in addition, since the distance traversed by the output beams is proportional to the number of encounters with the fully reflective surface, the OTDL introduces a progressive time delay between the output beams (*id.*, ¶187). Because the output beams result merely from a sequence of reflections, their spectral character remains the same as for the input beam.

For this reason, the OTDL cannot by itself properly be characterized as a transmissive dispersive element. Tarpin explains how a subsequent optical system, in this instance an anamorphic optical system, exploits the spatial and time-delay differences of the output beams to perform Fourier transformation, partial Fourier transformation, imaging, etc. of the output beams (*id.*, ¶190; *see id.*, ¶¶198 – 252 for a mathematical description of how these functions are accomplished).

Thus, Applicants respectfully disagree with certain characterizations of the system of Fig. 38 presented in the Office Action. Lens 612 is not a collimating lens because a beam input to the system is already presumed to be collimated (*id.*, ¶187); lens 612 instead represents a lens system, such as the anamorphic lens system described in connection with Fig. 12, to implement the transformation functions with the spatially separated and time-delayed beams (*id.*, ¶351). In addition, labels 622a–g are not properly identified with a transmissive dispersive element, but are instead merely taps that allow emanation of the spatially separated and time-delayed beams (*id.*, ¶351).

At best, only the combination of the OTDL 611 (including its fully and partially reflective surfaces) and the lens system 612 could be considered to act as a transmissive dispersive element, resolving input signal 610 to have spatially resolved wavelengths incident on mirror sections 616, 617, and 620; the combination of OTDL 611 and lens system 612 does not merely provide angular separation of spectral components. As is plainly evident from Fig. 38 and the accompanying description, the combination of OTDL 611 and lens system 612 is encountered only twice between (say) input 610 and output 625, not “at least four times” as the claims require. The number of times that an internal component may be encountered is irrelevant to determining whether “the transmissive dispersive element” is encountered at least four times.

CONCLUSION

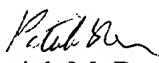
In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 09/992,087
Amdt. dated February 4, 2004
Reply to Office Action of December 5, 2003

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,


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